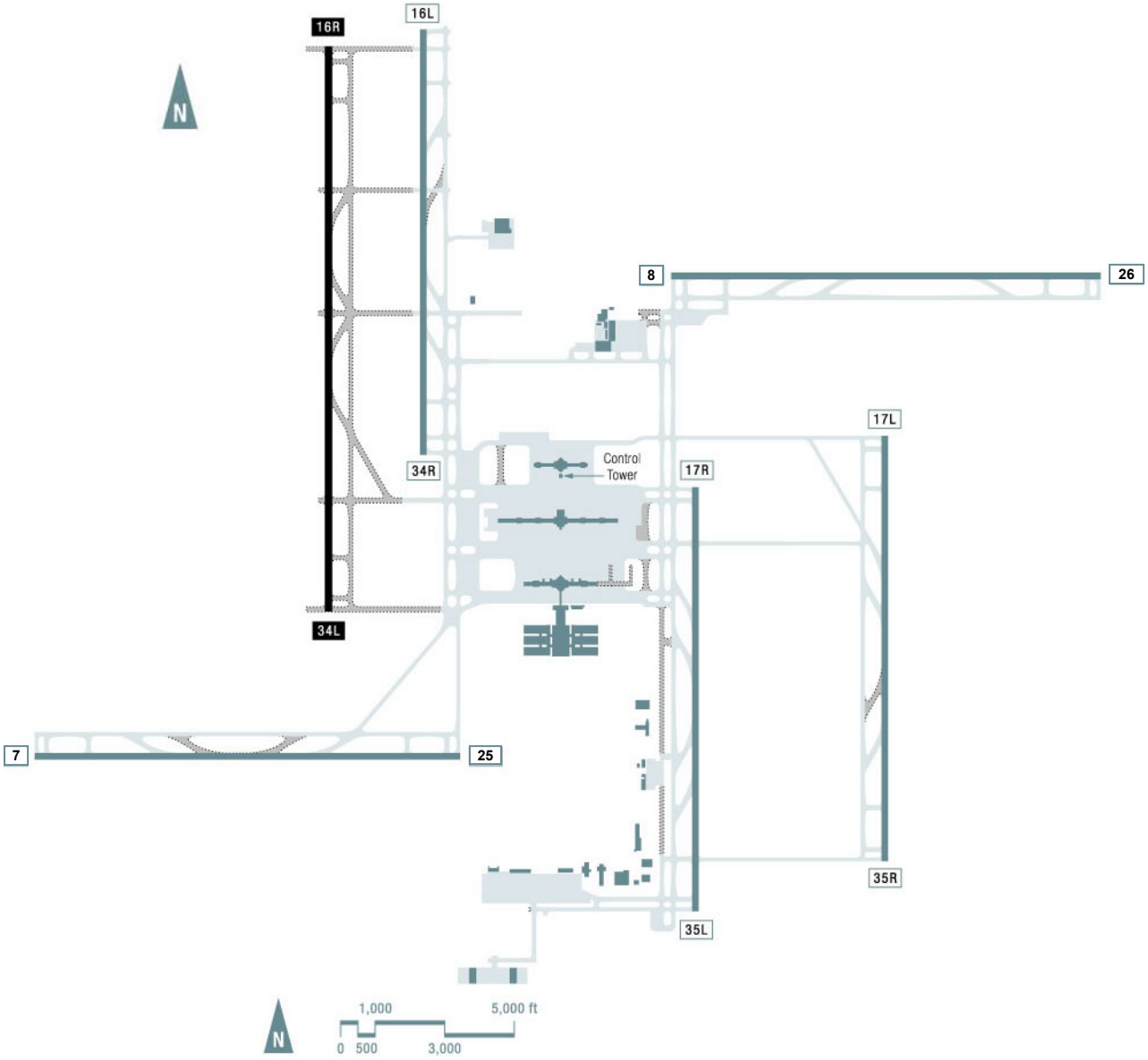
DENVER – Denver International (DEN)



Benchmark Results

- The capacity benchmark for Denver International Airport today is 210-219 flights per hour (arrivals and departures) in Optimum weather, when visual approaches can be conducted.
- The benchmark decreases to 186-202 flights per hour in Marginal conditions, and to 159-162 flights per hour in IFR conditions, for the most commonly used runway configuration in these conditions. Additional operations may be possible under other conditions, such as additional arrivals on a departure runway. On the other hand, throughput may be less when ceiling and visibility are low, or if adverse winds affect aircraft performance.
- Note that these benchmarks do not always represent balanced operations. Rather, there may be more arrivals than departures in the Optimum and Marginal scenarios, and more departures than arrivals in IFR. If the facility reported rates are significantly unbalanced (i.e., unequal numbers of arrivals and departures), the benchmark rates will be unbalanced as well. The facility reported rates reflect current operations at the airport during a busy hour, but such unbalanced rates cannot be sustained for extended periods.
- A new runway opened in 2003, allowing an additional departure stream and increasing the benchmark rate by 22-43 percent depending upon weather conditions. This increase assumes that airspace, air traffic control procedures, ground infrastructure, and environmental constraints allow full use of the new runway.
- Other planned technological improvements at DEN would increase the benchmark rate in all weather conditions. Improved delivery accuracy that is assumed to result from advanced TMA and RNAV procedures will help to increase the benchmark rate in the Optimum and IFR scenarios. The benchmark rate increases further under Marginal conditions with the additional benefit of CEFR, which is expected to allow visual separation by suitably equipped aircraft in Marginal conditions.
- The following charts compare actual hourly traffic with the calculated capacity curves for DEN.

These values were calculated for the Capacity Benchmarking task and should not be used for other purposes, particularly if more detailed analyses have been performed for the airport or for the individual programs.

The list of Planned Improvements and their expected effects on capacity does not imply FAA commitment to or approval of any item on the list.

DENVER – Denver International Airport (DEN)

Weather	*Scenario*	*Configuration*	*Procedures*	*Benchmark Rate (per hour)*
Optimum Rate Ceiling and visibility above minima for visual approaches (2000 ft ceiling and 3 mi visibility) *Occurrence: 92%*	**Today**	Arrivals on Runways 16, 17R, 7 Departures on 8, 17L *Frequency of Use: Insufficient data; facility reported configuration*	Visual approaches, visual separation	**210-219**
	New Runway (2003)	Arrivals on Runways 16, 17R, 7 Departures on 8, 17L, 16R		**266**
	Planned improvements (2013), including new runway	Arrivals on Runways 34L, 34R, 35L, 35R Departures on 8, 7, 34R, 34L		**281**
Marginal Rate Below visual approach minima but better than instrument conditions *Occurrence: 2%*	**Today**	Arrivals on Runways 35L, 35R, 26 Departures on 25, 34R *Frequency of Use: Insufficient data; facility reported configuration*	Instrument approaches, visual separation	**186-202**
	New Runway (2003)	Arrivals on Runways 35L, 35R, 26 Departures on 25, 34R, 34L		**249**
	Planned improvements (2013), including new runway	Arrivals on Runways 34L, 34R, 35L, 35R Departures on 8, 7, 34R, 34L	Visual approaches, visual separation	**281**
IFR Rate Instrument conditions (ceiling < 1000 ft or visibility < 3.0 miles) *Occurrence: 6%*	**Today**	Arrivals on Runways 34R,35L,35R Departures on 25, 34R *Frequency of Use: Insufficient data; facility reported configuration*	Instrument approaches, radar separation	**159-162**
	New Runway (2003)	Arrivals on Runways 34L, 35L, 35R Departures on 25, 34R, 34L		**227**
	Planned improvements (2013), including new runway	Same		**236**

NOTE: Data on frequency of occurrence of weather and runway configuration usage is based on FAA ASPM data for January 2000 to July 2002 (excluding 11-14 September 2001), 7 AM to 10 PM local time.

Full operational use of the new parallel runway will provide an additional departure stream in all weather scenarios.

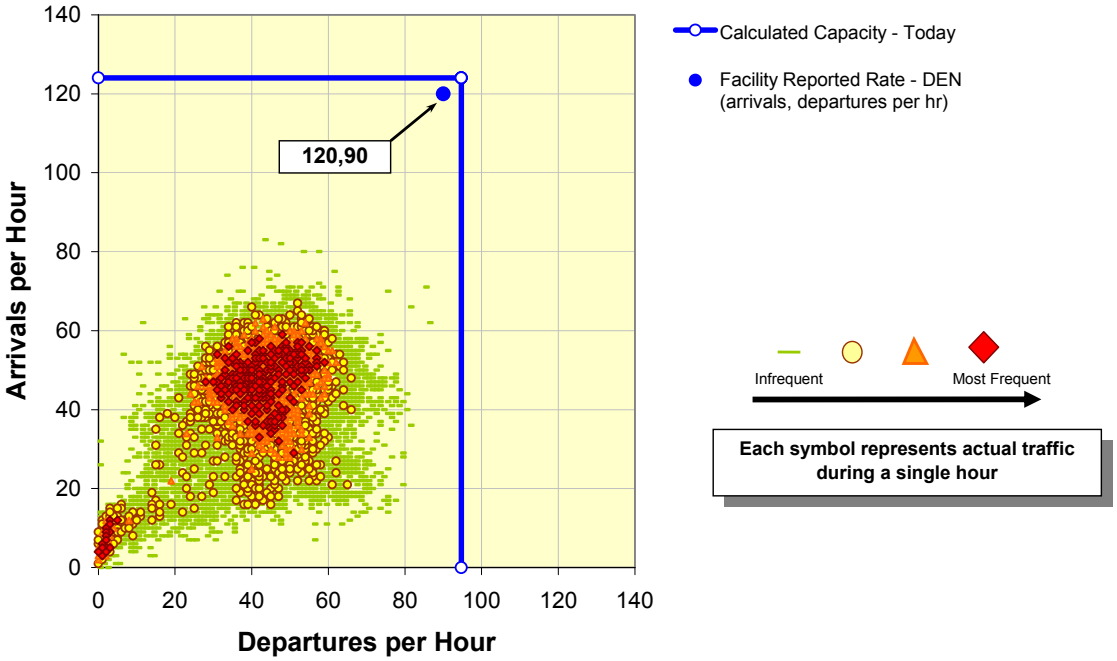
Other planned Improvements at DEN include:

- CEFR, for reduced in-trail separations between arrivals in Marginal conditions.
- Advanced TMA/RNAV, to improve delivery accuracy and help DEN consistently utilize available capacity.

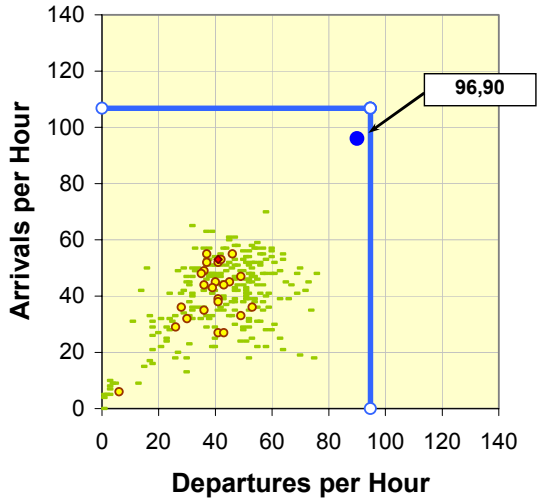
Additional information on these improvements may be found in the Introduction and Overview of this report, under “Assumptions.”

Calculated Capacity (Today) and Actual Throughput

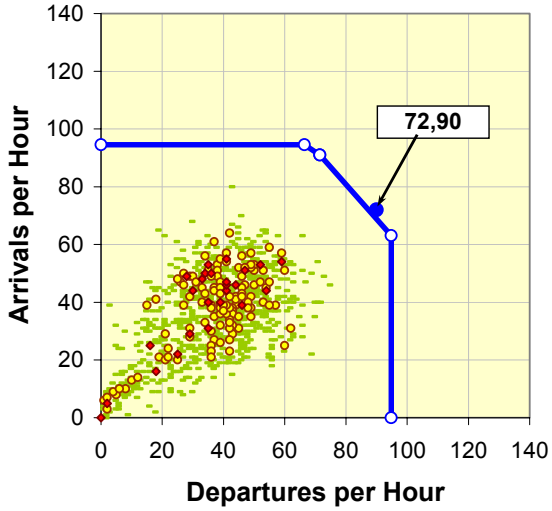
Optimum Rate



Marginal Rate



IFR Rate



Hourly traffic data was obtained from the FAA ASPM database for January 2000 to July 2002 (excluding 11-14 September 2001), 7 AM to 10 PM local time. Facility reported rates were provided by ATC personnel at DEN.